

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.

Amendment to the Claims:

In compliance with the Revised Amendment Format, a complete listing of claims is provided herein.

1. (Currently amended) Apparatus for at least one of freezing and thawing at least one bioproduct, comprising:

a unit for at least one of freezing and thawing at least one bioproduct on a small scale, the unit comprising at least two opposite surfaces;

wherein at least one of the at least two opposite surfaces is coupleable to at least one driving device for at least one of freezing and thawing, ~~and wherein at least one of (a) a proportional spacing of the at least two opposite surfaces are proportionally spaced to correspond to a freezing path length of a larger-scale unit or section thereof for at least one of~~ and (b) a first dimension of a bioproduct container for the unit, corresponds to a second freezing and thawing bioproduct dimension of a bioproduct container for a larger-scale unit, and wherein the first dimension and the second dimension are different dimensions.

2. (Original) The apparatus of claim 1, further comprising at least one driving device for at least one of freezing and thawing, wherein the at least one driving device is coupleable to the at least one of the at least two opposite surfaces.

3. (Original) The apparatus of claim 2, wherein the at least one driving device comprises at least one conduit for a heat-transfer fluid.

4. (Original) The apparatus of claim 3, wherein the at least one conduit comprises a winding conduit.

5. (Original) The apparatus of claim 1, further comprising at least two clamping arrays coupled to the unit for holding a plurality of bioproduct containers.

6. (Original) The apparatus of claim 5, wherein the at least two clamping arrays are coupled to the at least two opposite surfaces of the unit.

7. (Currently amended) The apparatus of claim 1, wherein the ~~at least two opposite surfaces are proportionally spaced about one-to-one to correspond to the freezing path length at least one of (a) the proportional spacing and (b) the first dimension, corresponds about one-to-one to the second dimension.~~

8. (Original) The apparatus of claim 1, further comprising at least one container situatable within the unit for containing the at least one bioproduct.

9. (Original) The apparatus of claim 1, wherein the unit comprises a plurality of cells for holding the at least one bioproduct.

10. (Original) The apparatus of claim 9, further comprising at least one divider for creating the plurality of cells.

11. (Original) The apparatus of claim 10, wherein at least one of the at least one divider is removable.

12. (Original) The apparatus of claim 1, further comprising a heat-conductive cladding for the unit.

13. (Original) The apparatus of claim 12, wherein the heat-conductive cladding comprises a metal.

14. (Currently amended) A system for performing at least one of freezing and thawing of at least one bioproduct on a small scale, comprising:

a unit for at least one of freezing and thawing at least one bioproduct on a small scale, the unit comprising at least two opposite surfaces;

at least one driving device for at least one of freezing and thawing coupleable to at least one of the at least two opposite surfaces; and

at least one container for containing at least one bioproduct specimen within the unit;

wherein at least one of (a) a proportional spacing of the at least two opposite surfaces are proportionally spaced to correspond to a freezing path length of a larger-scale unit or section thereof for at least one of freezing and thawing a bioproduct and (b) a first dimension of the at least one container, corresponds to a second dimension of a bioproduct container for a larger-scale unit, and wherein the first dimension and the second dimension are different dimensions.

15. (Original) The system of claim 14, wherein the at least one driving device comprises at least one conduit for a heat-transfer fluid.

16. (Original) The system of claim 15, wherein the at least one conduit comprises a winding conduit.

17. (Original) The system of claim 14, further comprising at least two clamping arrays coupled to the unit for holding a plurality of bioproduct containers.

18. (Original) The system of claim 17, wherein the at least two clamping arrays are coupled to the at least two opposite surfaces of the unit.

-7-

2035.008A

19. (Currently amended) The system of claim 14, wherein the ~~at least two opposite surfaces are proportionally spaced about one to one to correspond to the freezing path length at least one of (a) the proportional spacing and (b) the first dimension, corresponds about one to one to the second dimension.~~

20. (Original) The system of claim 14, wherein the at least one container is integral with the unit.

21. (Original) The system of claim 20, wherein the at least one container comprises a plurality of cells for holding the at least one bioproduct.

22. (Original) The system of claim 21, further comprising at least one divider for creating the plurality of cells.

23. (Original) The system of claim 22, wherein at least one of the at least one divider is removable.

24. (Original) The system of claim 14, wherein the at least one container is separate from and situatable within the unit.

25. (Original) The system of claim 14, further comprising a heat-conductive cladding for the unit.

26. (Original) The system of claim 25, wherein the heat-conductive cladding comprises a metal.

27. (Currently amended) A method of performing at least one of freezing and thawing of at least one bioproduct on a small scale, comprising:

providing a unit for at least one of freezing and thawing at least one bioproduct, the unit comprising at least two opposite surfaces;

coupling at least one of the at least two opposite surfaces to at least one driving device for at least one of freezing and thawing; and

performing at least one of freezing and thawing on the at least one bioproduct, wherein the bioproduct is situated within the unit;

wherein at least one of (a) a proportional spacing of the at least two opposite surfaces and (b) a first dimension of a bioproduct container for the unit, corresponds to a second dimension of a bioproduct container for a larger-scale unit, and wherein the first dimension and the second dimension are different dimensions.

28. (Original) The method of claim 27, further comprising situating the at least one bioproduct within the unit.

29. (Original) The method of claim 28, wherein the bioproduct is situated within a container, and wherein the situating comprises situating the container within the unit.

30. (Original) The method of claim 27, wherein the unit comprises a plurality of cells for accepting the at least one bioproduct, the method further comprising situating the at least one bioproduct within at least one of the plurality of cells.

31. (Original) The method of claim 27, wherein the performing comprises controlling a rate of heat exchange between the at least one driving device and the at least one bioproduct.

32. (Original) The method of claim 27, further comprising coupling at least one heating-conductive cladding to the unit.

33. (New) The apparatus of claim 1, wherein the first dimension comprises a width, and wherein the second dimension comprises a thickness.

34. (New) The apparatus of claim 33, wherein the bioproduct container for the unit comprises a first bag, and wherein the bioproduct container for the larger-scale unit comprises a second bag larger than the first bag.

35. (New) The system of claim 14, wherein the first dimension comprises a width, and wherein the second dimension comprises a thickness.

36. (New) The system of claim 35, wherein the bioproduct container for the unit comprises a first bag, and wherein the bioproduct container for the larger-scale unit comprises a second bag larger than the first bag.

37. (New) The method of claim 27, wherein the first dimension comprises a width, and wherein the second dimension comprises a thickness.

38. (New) The method of claim 37, wherein the bioproduct container for the unit comprises a first bag, and wherein the bioproduct container for the larger-scale unit comprises a second bag larger than the first bag.